

Amendments to the Specification:

In the paragraph starting on page 4, starting with "In order to solve the above and other problems," please amend as the following:

In order to solve the above and other problems, according to a first aspect of the current invention, ~~a method of optically determining coordinates in a predetermined space, including: providing a predetermined number of pairs of light emitting elements and light detecting elements in the predetermined space defined by a predetermined number of axes; placing each of the pairs parallel to one of the predetermined number of the axes; each of the pairs including one linearly and equidistantly placed set of the light emitting elements and another linearly and equidistantly placed set of the light detecting elements; sequentially activating one of the light emitting elements in one of the pairs for emitting light; inputting input coordinates in the predetermined space by interrupting the emitted light from the sequentially activated one of the light emitting elements; detecting the light from the sequentially activated one of the light emitting elements at a plurality of predetermined ones of the light detecting elements of the one of the pairs so as to generate a detection result, the predetermined ones of the light detecting elements overlap for some of the sequentially activated ones of the light emitting elements; repeating the sequentially activating and the detecting for each of the predetermined number of the axes; and determining the input coordinates in the predetermined space based upon the detection result from the detecting.~~ method of detecting coordinates based upon two groups of opposing pairs of light emitting elements and light detecting elements, the two groups being perpendicularly positioned along two directions and surrounding a two-dimensional coordinate input and detection area for accepting an input from a pointing means, a plurality of the light detecting elements being placed in a light emitting area of each of the light emitting elements to accept light emitted from each of the light emitting elements in an overlapping manner, including the steps of: sequentially and individually activating the light emitting elements within a predetermined time interval; determining whether or not the light is interrupted along directions between activated one of the light emitting elements and the light detecting elements in the corresponding light emitting area of the activated light emitting element; calculating

two-dimensional coordinates for the input from the pointing means based upon the positions of the activated light emitting element and one or more of the light detecting elements that have detected the interruption of the light in the corresponding light emitting area, which define the interrupted light detecting elements.

In the paragraph starting on page 5, starting with "According to a second aspect of the current invention," please amend as the following:

~~According to a second aspect of the current invention, a storage medium containing computer instructions for optically determining coordinates in a predetermined space, including: providing a predetermined number of pairs of light emitting elements and light detecting elements in the predetermined space defined by a predetermined number of axes; placing each of the pairs parallel to one of the predetermined number of the axes, each of the pairs including one linearly and equidistantly placed set of the light emitting elements and another linearly and equidistantly placed set of the light detecting elements; sequentially activating one of the light emitting elements in one of the pairs for emitting light; inputting input coordinates in the predetermined space by interrupting the emitted light from the sequentially activated one of the light emitting elements; detecting the light from the sequentially activated one of the light emitting elements at a plurality of predetermined ones of the light detecting elements of the one of the pairs so as to generate a detection result, the predetermined ones of the light detecting elements overlap for some of the sequentially activated ones of the light emitting elements; repeating the sequentially activating and the detecting for each of the predetermined number of the axes; and determining the input coordinates in the predetermined space based upon the detection result from the detecting;~~ a storage medium containing computer instructions for detecting coordinates based upon two groups of opposing pairs of light emitting elements and light detecting elements, the two groups being perpendicularly positioned along two directions and surrounding a two-dimensional coordinate input and detection area for accepting an input from a pointing means, a plurality of the light detecting elements being placed in a light emitting area of each of the light emitting elements to accept light emitted from each of the light emitting elements in an

overlapping manner, the computer instructions performing the tasks of: sequentially and individually activating the light emitting elements within a predetermined time interval; determining whether or not the light is interrupted along directions between activated one of the light emitting elements and the light detecting elements in the corresponding light emitting area of the activated light emitting element; calculating two-dimensional coordinates for the input from the pointing means based upon the positions of the activated light emitting element and one or more of the light detecting elements that have detected the interruption of the light in the corresponding light emitting area, which define the interrupted light detecting elements.

In the paragraph starting on page 5, starting with "According to a third aspect of the current invention," please amend as the following:

~~According to a third aspect of the current invention, a system for optically determining coordinates in a predetermined space, including: a predetermined number of pairs of light emitting elements and light detecting elements in the predetermined space defined by a predetermined number of axes, each of the pairs being placed parallel to one of the predetermined number of the axes, each of the pairs including one linearly and equidistantly placed set of the light emitting elements and another linearly and equidistantly placed set of the light detecting elements; a control unit connected to the light emitting elements for sequentially activating one of the light emitting elements in one of the pairs for emitting light, the control unit also being connected to the light detecting elements for controlling to detect the light from the sequentially activated one of the light emitting elements at a plurality of predetermined ones of the light detecting elements of the one of the pairs so as to generate a detection result, the predetermined ones of the light detecting elements overlapping for some of the sequentially activated ones of the light emitting elements, the control unit sequentially activating the light emitting elements and the light detecting elements for each of the predetermined number of the axes in a repeating manner; an input object for inputting input coordinates in the predetermined space by interrupting the emitted light from the sequentially activated one of the light emitting elements; and an input coordinate determination unit connected to the control unit for determining the input coordinates in the predetermined space based upon the detection result.~~

a system for detecting coordinates based upon two groups of opposing pairs of light emitting elements and light detecting elements, the two groups being perpendicularly positioned along two directions and surrounding a two-dimensional coordinate input and detection area for accepting an input from a pointing means, a plurality of the light detecting elements being placed in a light emitting area of each of the light emitting elements to accept light emitted from each of the light emitting elements in an overlapping manner, including: a light emitting control for sequentially and individually activating the light emitting elements within a predetermined time interval; an interruption determination unit connected to the light emitting control for determining whether or not the light is interrupted along directions between activated one of the light emitting elements and the light detecting elements in the corresponding light emitting area of the activated light emitting element; a coordinate calculation unit connected to the determination unit for calculating two-dimensional coordinates for the input from the pointing means based upon the positions of the activated light emitting element and one or more of the light detecting elements that have detected the interruption of the light in the corresponding light emitting area, which define the interrupted light detecting elements.

In the paragraph starting on page 6, starting with "According to a fourth aspect of the current invention," please delete the following:

~~According to a fourth aspect of the current invention, An electronic blackboard for displaying and optically inputting information, including: — a writing/displaying unit having a surface to display and receive the information, the surface having edges; a predetermined number of pairs of light emitting elements and light detecting elements located near the edges, each of the pairs being placed parallel, each of the pairs including one linearly and equidistantly placed set of the light emitting elements and another linearly and equidistantly placed set of the light detecting elements; — a control unit connected to the light emitting elements for sequentially activating one of the light emitting elements in one of the pairs for emitting light, the control unit also being connected to the light detecting elements for controlling to detect the light from the~~

~~sequentially activated one of the light emitting elements at a plurality of predetermined ones of the light detecting elements of the one of the pairs so as to generate a detection result, the predetermined ones of the light detecting elements overlapping for some of the sequentially activated ones of the light emitting elements, the control unit sequentially activating the light emitting elements and the light detecting elements for each of the predetermined number of the axes in a repeating manner; an input object on the surface for inputting input coordinates in the predetermined space by interrupting the emitted light from the sequentially activated one of the light emitting elements; and an input coordinate determination unit connected to the control unit for determining the input coordinates in the predetermined space based upon the detection result.~~